

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 03/13786

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 B23K20/04 B23K20/233

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 B23K A44C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 29 37 317 A (MITSUBISHI METAL CORP) 26 March 1981 (1981-03-26)	1,2,4,5, 9,10,13, 14, 24-27, 29-36,44
Y	page 20, line 16-19; figure 9	17,18
A	page 8, paragraph 1 page 12, paragraph 3	3
Y	PATENT ABSTRACTS OF JAPAN vol. 010, no. 267 (M-516), 11 September 1986 (1986-09-11) & JP 61 092790 A (MITSUBISHI HEAVY IND LTD), 10 May 1986 (1986-05-10)	17,18
A	abstract	1-8, 18-25
-/-		

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- 'A' document defining the general state of the art which is not considered to be of particular relevance
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- 'O' document referring to an oral disclosure, use, exhibition or other means
- 'P' document published prior to the international filing date but later than the priority date claimed

- 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- 'Y' document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
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Date of the actual completion of the international search

16 April 2004

Date of mailing of the international search report

22/04/2004

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>PATENT ABSTRACTS OF JAPAN vol. 1999, no. 08, <del>30 June 1999 (1999-06-30)</del> &amp; JP 11 077336 A (KAWAI MUSICAL INSTR MFG CO LTD), 23 March 1999 (1999-03-23) abstract</p>	1-44
A	<p>DE 15 27 534 A (DUERRWAECHTER E DR DODUCO) 6 November 1969 (1969-11-06) claim 1; figures 2-4</p>	1-44
A	<p>PATENT ABSTRACTS OF JAPAN vol. 010, no. 142 (M-481), 24 May 1986 (1986-05-24) &amp; JP 61 001487 A (HITACHI ZOSEN KK), 7 January 1986 (1986-01-07) abstract</p>	9-16

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
DE 2937317	A	26-03-1981	DE 2937317 A1	26-03-1981
JP 61092790	A	10-05-1986	NONE	
JP 11077336	A	23-03-1999	NONE	
DE 1527534	A	06-11-1969	DE 1527534 A1	06-11-1969
JP 61001487	A	07-01-1986	NONE	